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other univalent anionic ligand; two such X's joined to form an anionic chelating ligand; or, one or more neutral non-hydrocarbyl atom containing donor ligand, e.g., phosphine, amine, nitrile or CO ligand.

In a preferred embodiment of the invention, the bidentate ligand, L, is defined by the 5 following formula:

$$\begin{bmatrix} R_{m} - E & A \\ E - R_{n} \end{bmatrix}^{p}$$

wherein A is a bridging group containing a Group 13-15 element; each E is independently a Group 15 or 16 element covalently bonded to M; each R is independently a C1-C30 10 containing radical or diradical group which is a hydrocarbyl, substituted-hydrocarbyl, halocarbyl, substituted-halocarbyl, hydrocarbyl-substituted organometalloid, halocarbylsubstituted organometalloid, m and n are independently 1 or 2 depending on the valency of E; and p is the charge on the bidentate ligand such that the oxidation of state of MXr is satisfied. 15

In the most preferred embodiment of the invention, the bridging group, A, is defined by the following formulae: